



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

7/16

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/179,290	10/27/1998	MAURICE J.M. CUIJPERS	PHN-16.580	5507

7590 11/23/2001

GREGORY L THORNE  
U S PHILIPS CORPORATION  
580 WHITE PLAINS ROAD  
TARRYTOWN, NY 10591

EXAMINER

ALAVI, AMIR

ART UNIT PAPER NUMBER

2621

DATE MAILED: 11/23/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

6

**Office Action Summary**

Application No.

09/179,290

Applicant(s)

CUIJPERS, MAURICE J.M.

Examiner

Amir Alavi

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 September 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \*   c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_                      6) ☐ Other: \_\_\_\_\_

### **Response to Arguments**

- Examiner apologizes for any inconvenience created by the late discovery of the newly applied references. Applicant is invited to contact Examiner to discuss any proposals, so as to more rapidly resolve the issues in this case and to expedite agreement as to allowable subject matter.
  
- In view of the Appeal Brief filed on April 6, 2001, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are as set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

- (a) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,
- (b) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

### **Drawings**

- The drawings are objected to under 37 CFR 1.83(a) because they fail to show the labeling as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d).

Correction is required.

### **Claim Rejections - 35 USC § 102**

- The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

- Claims 1-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Suzuki (US 5,825,917).

Regarding claim 1, Suzuki discloses defining a subdivision of the output image into regions of image locations (please note, column 2, lines 33-36, "It is therefore the object of the present invention to provide a region-based image processing method and apparatus intended to compress image data by dividing an image into units of regions having analogous colors); providing a color look-up table (Please note, column 2, line 59, "The element color is contained in, for instance, a color table"); providing a respective set of references to the color look-up table for each region (Please note, column 2, lines 60-66, "First, the color of each portion of the image is replaced with one of the element colors. For example, the color of each pixel is replaced with an element, among the elements of the color table, which minimizes the color difference relative to the color of each element. Even though the original image contained 10000 colors, the image will be represented by 100 colors, if the number of the element colors is 100"); providing a pixel map comprising a selection code for each image location (Please note, column 3, lines 48-50, "According to the image processing method of the present invention, the thus integrated region is coded by the information on the border lines between regions". In this regard Examiner considers the border lines to correspond to Applicant's pixel map. Also please note, column 2, line 52, "...the color of each portion with an element color". In this regard Examiner considers element color to corresponds to Applicant's selection code"); selecting a particular reference to the color look-up table for a particular image location from the particular set provided for the region to which the particular image location belongs, by using the selection code as a

pointer in that particular set (Please note, column 2, lines 60-66, "First, the color of each portion of the image is replaced with one of the element colors. For example, the color of each pixel is replaced with an element, among the elements of the color table, which minimizes the color difference relative to the color of each element. Even though the original image contained 10000 colors, the image will be represented by 100 colors, if the number of the element colors is 100"); wherein the pixel map is constructed by grouping the image locations in each region into groups according to a similarity of color values in a source image, the selection code identifying the group to which the image location belongs among the groups for the region (Please note, column 6, lines 38-43, "Thus, the pixels belonging to the pixel group A are integrated as having the same color number n, whereas the pixels belonging to the pixel group B are integrated as having the same color number m. Over the entire image, the pixel integration section 18 performs such integration processing to consequently integrate all regions. The above processing will complete the data compression."); wherein the color look-up table is provided for the source image, all color values of the source image being in the color look-up table, the reference used for the image locations in a particular group of the pixel map being constructed from at least one reference to the color look-up table which defines the color value in the source image for at least one image location in the particular group. (Please note, column 7, lines 29-33, "The image transmitter 30 further includes a color table creation section 36 which creates a new color table by extracting

color table elements necessary for the representation of the final image after the completion of the region integration by the pixel integration section 18”).

Regarding claim 2, Suzuki discloses, wherein the reference used for the image locations in the particular group is constructed by selecting a representative image location from the particular group and taking the reference defining the color value for the representative image location in the source image. (Please note, column 7, lines 29-33, “The image transmitter 30 further includes a color table creation section 36 which creates a new color table by extracting color table elements necessary for the representation of the final image after the completion of the region integration by the pixel integration section 18”).

Regarding claim 3, Suzuki discloses, wherein the representative image location is selected by determining an image property for each image location in the particular group from the color values in the source image for these image Locations in the particular group, and selecting as representative imageLocation an image location for which the image property is a median value among the image properties of the image locations in the particular group. (Please note, column 5, lines 56-57, “An average color for each region is defined as a color presentative of that region”).

Regarding claim 4, Suzuki discloses, wherein the representative image location is an image location, which has a median value of the image property among the image properties of the image locations in the particular group. (Please note,

column 5, lines 56-57, "An average color for each region is defined as a color presentative of that region").

Regarding claim 5, Suzuki discloses, wherein the image property is the luminance of the color value in the source image. (Please note, column 8, line 9, "...or a region having a high brightness").

Regarding claim 6, Suzuki discloses, Wherein the output image represents a pyramid of levels of increasingly higher resolution versions of a basic image, each level being subdivided into regions, the color look-up table being common for all levels, each level being associated, with a respective pixel map, the particular reference to the color look-up table being selected for a particular image location at a particular level, from the particular set provided for the region for that level according to the pixel map for that level. (Please note, column 8, lines 3-14).

Regarding claim 7, Suzuki discloses a method, used for texture mapping in computer graphics, wherein the levels are different resolution levels of a mipmap. (Please note, column 22, lines 35-50).

Regarding claims 8-10, arguments analogous to those presented for claim 1 are applicable.

Regarding claims 11 & 12, arguments analogous to those presented for claims 2 & 3, respectively are applicable.



**Other prior art cited**

- The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Xia et al. (US 6,014,466), is pertinent as teaching object based coding.

Reed et al. (US 5,995,653), is pertinent as teaching digital image processing system and method.

Todoroki (US 6,219,445 B1) is pertinent as teaching multi-color image encoding and/or decoding.

Gill et al. (US 6,259,810 B1), is pertinent as teaching method and system of decoding compressed image data.

Tsang et al. (US 5,619,591), is pertinent as teaching encoding and decoding color image data based on mean luminance and an upper and a lower color value.

**Contact Information**

- Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amir Alavi whose telephone number is (703) 306-5913.

The examiner can normally be reached on Monday through Friday from 8:00 a.m. to 6:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Boudreau, can be reached at (703) 305-4706.

**Any response to this action should be mailed to:**

Assistant Commissioner for Patents  
Washington, D.C. 20231

**or faxed to:**

(703) 872-9314, or (703) 308-9052 (for **formal** communications; please mark  
"EXPEDITED PROCEDURE")

**or:**

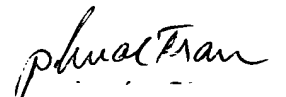
(703) 306-5406 (for **informal** or **draft** communications, please label  
"PROPOSED" or "DRAFT")

**Hand delivered responses** should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should be directed to the Group Receptionist whose telephone number is (703) 305-4750.

Amir Alavi  
Patent Examiner  
Group Art Unit 2621  
November 16, 2001

  
LEO BOUDREAU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600

  
Phuong Tran  
Patent Examiner